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EXAMINER	
KURANI, CHARU S	

ART UNIT	PAPER NUMBER
2191	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/790,605	HARRY ET AL.	
	Examiner	Art Unit	
	Charu S. Kurani	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/24/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This initial Office Action is based on the application filed on March 1, 2004.

2. **Claims 1-23** are pending.

Claim Objections

3. Claim 1 is objected to because of the following informalities: it is grammatically incorrect "a version control component that process the intermediate software component as if a completed software design." Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 9-12** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "a workspace" in line 2 and it is unclear whether it is intended to be the same or different from "a private workspace" recited in line 2 of **Claim 7**.

Claim 11 recites the limitation "a unique identifier" in lines 1-2 and it is unclear whether it is intended to be the same or different from "a unique identifier" recited in lines 1-2 in **Claim 10**.

Claims 10 and 12 are rejected because of dependence on rejected base **Claim 9**.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. **Claims 1-12 and 14-15** are rejected under 35 U.S.C. because the claimed invention is directed to non-statutory subject matter.

Claims 1-12 are directed to a "software development system". However, the recited components of the system appear to lack the necessary physical components (hardware) to constitute a machine or manufacture under §101. Therefore, these claim limitations can be reasonably interpreted as computer program modules – software *per se*. The claims are directed to functional descriptive material *per se*, and hence non-statutory.

The claims constitute computer programs representing computer listings *per se*. Such descriptions or expressions of the programs are not physical "things." They are neither components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural or functional interrelationships between computer programs and other elements of a computer, which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element, which defines structural and functional interrelationships between the computer program and the rest of the computer, that permits the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 14-15 are directed to a "code development system". However, the recited components of the system appear to lack the necessary physical components (hardware) to constitute a machine or manufacture under §101. Therefore, these claim limitations can be reasonably interpreted as computer program modules – software *per se*. The claims are directed to functional descriptive material *per se*, and hence non-statutory.

The claims constitute computer programs representing computer listings *per se*. Such descriptions or expressions of the programs are not physical "things." They are neither components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural or functional interrelationships between computer programs and other elements of a computer, which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a

computer program is a computer element, which defines structural and functional interrelationships between the computer program and the rest of the computer, that permits the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 1-6, 9-13, 16-19, and 21** are rejected under 35 U.S.C. 102(b) as being anticipated by **Parrish (US 5,752,245)**.

As per **Claim 1**, Parrish discloses:

- a shelving component that captures a current state of an intermediate software design; and (*See Column 7: 66 - Column 8: 2, "A Project History server manages a single history database which is responsible for maintaining current drafts and histories of program components which are part of the client Project."*)
- a version control component that processes the intermediate software design as if a completed software design. (*See Column 9: 46-48, "In this case, the Project*

assumes that the desired version of the component is the one in the current configuration.")

As per **Claim 2**, the rejection of **Claim 1** is incorporated, and Parrish discloses:

- one or more code development systems that are employed by a developer to design software applications. (*See Column 3: 41-43, "A program developer, upon logging into a client terminal on the network, establishes a workspace or project and connects with one of the servers."; see also Column 1: 17-20, "This invention relates generally to improvements in computer systems and, more particularly, to object-oriented software for managing changes, revisions, and modifications in software program development projects."*)

As per **Claim 3**, the rejection of **Claim 1** is incorporated, and Parrish discloses:

- the shelving component is executed on at least one of a local development system or a centralized server or servers. (*See Column 7: 57-59, "A Project History is a database which maintains various drafts, or versions, of the Project and is located in one or more server nodes."*)

As per **Claim 4**, the rejection of **Claim 1** is incorporated, and Parrish discloses:

- the version control component includes committed work or files that are generally checked in as finalized versions of code. (*See Column 16, ". . . the History Server table entry of each History Server which stores any newly*

created or changed components is set to a 'NeedToCommit' state . . . If all member transactions reach the commit state, then the state entry for that History Server in the History Server Table is set to 'Committed.'")

As per **Claim 5**, the rejection of **Claim 1** is incorporated, and Parrish discloses:

- the version control system enables authorized users to retrieve respective versions of code to produce intermediate versions or builds of software in cases that utilize the shelving component or final versions or builds of software in cases that build from the committed work. (*See Column 17: 13-16, "After connection to the History Server which maintains the history of a given project, the Project workspace is empty and it is necessary to retrieve previous drafts of the program components to begin using the workspace."*)

As per **Claim 6**, the rejection of **Claim 1** is incorporated, and Parrish discloses:

- the shelving component is employed for at least one of an interrupted workflow application, a checkpoint application, a shared work application, a code backup application, a work exchange application, and a private workspace exchange application. (*See Column 3: 21-24, "Accordingly, it is an object of the present invention to provide a program development management system which supports the reliable sharing and reuse of objects and other program components by a program development team."*)

As per **Claim 9**, the rejection of **Claim 1** is incorporated, and Parrish discloses:

- a component to store state information for all files or folders in a workspace or for individual files in the workspace. (*See Column 7: 57-59, "A Project History is a database which maintains various drafts, or versions, of the Project and is located in one or more server nodes."*)

As per **Claim 10**, the rejection of **Claim 9** is incorporated, and Parrish discloses:

- the state information includes at least one of a unique identifier for all files and folders in the workspace and a version number of each file or folder in the workspace. (*See Column 9: 27-29, "Each program component in a Project is identified by a pair of unique IDs. The first ID, called the component ID represents a component independent of its version. The second ID, identifies which version of the component."*)

As per **Claim 11**, the rejection of **Claim 9** is incorporated, and Parrish discloses:

- the state information includes at least one of a unique identifier for a file, a number of a version that was modified to create a current state, and a locally modified state of a file. (*See Column 9: 27-29, "Each program component in a Project is identified by a pair of unique IDs. The first ID, called the component ID represents a component independent of its version. The second ID, identifies which version of the component."*)

As per **Claim 12**, the rejection of **Claim 9** is incorporated, and Parrish discloses:

- meta-data that is associated with the state information. (*See Column 9: 59-60, "Special information called metadata is used to associate a set of properties with a specific component kind."*)

As per **Claim 13**, the rejection of **Claim 1** is incorporated, and Parrish discloses:

- A computer readable medium having computer readable instructions stored thereon (*See Column 4: 58-60, "Both the client and server portions of this invention are preferably practiced in context of an operating system, resident on a personal computer . . ."*)
- for implementing the shelving component and (*See Column 7: 66 - Column 8: 2, "A Project History server manages a single history database which is responsible for maintaining current drafts and histories of program components which are part of the client Project."*)
- the version control component of claim 1. (*See Column 9: 46-48, "In this case, the Project assumes that the desired version of the component is the one in the current configuration."*)

As per **Claim 16**, Parrish discloses:

- creating a version of software in a local development system; automatically determining at least one state for the software ; and (*See Column 7: 57-59, "A*

Project History is a database which maintains various drafts, or versions, of the Project and is located in one or more server nodes.")

- shelving the software and the state on a version control system. (*See Column 7: 57-59, "A Project History is a database which maintains various drafts, or versions, of the Project and is located in one or more server nodes."*)

As per **Claim 17**, the rejection of **Claim 16** is incorporated, and Parrish discloses:

- unshelving the version of software in accordance with the state. (*See Column 17: 13-16, "After connection to the History Server which maintains the history of a given project, the Project workspace is empty and it is necessary to retrieve previous drafts of the program components to begin using the workspace."*)

As per **Claim 18**, the rejection of **Claim 16** is incorporated, and Parrish discloses:

- providing at least one of a shelving command and an unshelving command to facilitate development of the software. (*See Column 7: 1-3, ". . . a user interface might provide a set of pre-defined graphic interface objects . . ."*)

As per **Claim 19**, the rejection of **Claim 18** is incorporated, and Parrish discloses:

- the shelving command is associated with at least one of a preserve option, a workspace option, a replace option, a comment option, a file option, an error condition, and an exit code. (*See Column 7: 1-3, ". . . a user interface might*

provide a set of pre-defined graphic interface objects which create windows, scroll bars, menus, etc. . . .")

As per **Claim 21**, the rejection of **Claim 18** is incorporated, and Parrish discloses:

- the unshelving command is associated with at least one of a preserve option, a file option, a name option, a username option, an error condition, and an exit code. (*See Column 7: 1-3, " . . . a user interface might provide a set of pre-defined graphic interface objects which create windows, scroll bars, menus, etc. . . .*")

10. **Claims 14, 15, and 22** are rejected under 35 U.S.C. 102(b) as being anticipated by **Ziebell (US 6,385,768)**.

As per **Claim 14**, Ziebell discloses:

- means for archiving non-finalized software in a version control system; (*See Column 6: 32-35, " . . . a check-in function in VCS allows a developer to create a new revision in the archive from the revision that was previously checked out by the developer.*")
- means for capturing one or more states associated with the non-finalized software; and (*See Column 5: 34-35, "A version identifier in VCS identifies each revision in VCS.*")

- means for processing the non-finalized software along with finalized software on the version control system. (*See Column 5: 53-54, "The revisions included can belong to one or more archives."*)

As per **Claim 15**, the rejection of **Claim 14** is incorporated, Ziebell discloses:

- means for restoring the states and the non-finalized software to a previous state. (*See Column 1: 43-47, "While a software developer is making a change to a source code file, a serious mistake is made, and the developer needs to recover the file to the point before the change was made. Without version control, there is no recovery mechanism."*)

As per **Claim 22**, Zeibell discloses:

- a display component to highlight one or more intermediate files to archive on a version control system; and (*See Column 5: 50-62, "A circle 27 represents Archive I, a circle 28 represents a change that includes one or more revisions shown by blocks 29, 30 and 31; and, a circle 32 represents Archive II. The revisions included in a change can belong to one or more archives. Thus, revisions 29 and 30 are from Archive I while revision 31 is from Archive II. The change keeps track of the Archives and the revisions from those Archives that were modified as part of the change. A change can be associated with a workspace. Each time a revision is checked out to the workspace it is added*

along with its archive to the change. In this way, VCS knows what Archives and what revisions from the Archive that make up a change.")

- an shelving command input to enable users to transfer the intermediate files to a version control system (*See Column 5: 58-62, "Each time a revision is checked out to the workspace it is added along with its archive to the change. In this way, VCS knows what Archives and what revisions from the Archive that make up a change."*)
- as if the intermediate files were finalized versions of the intermediate files. (*Column 7: 5-6, "After being tested, inspected and approved, a change will be ready to be incorporated into a software release."*)

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. **Claims 7, 8, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Parrish (US 5,752,245)** in view of **Ziebell (US 6,385,768)**.

As per **Claim 7**, the rejection of **Claim 1** is incorporated, and Parrish does not disclose:

- an unshelving component that restores a private workspace to a state that was previously archived.

Zeibell discloses:

- an unshelving component that restores a private workspace to a state that was previously archived. (*See Column 5: 50-62, "A circle 27 represents Archive I, a circle 28 represents a change that includes one or more revisions shown by blocks 29, 30 and 31; and, a circle 32 represents Archive II. The revisions included in a change can belong to one or more archives. Thus, revisions 29 and 30 are from Archive I while revision 31 is from Archive II. The change keeps track of the Archives and the revisions from those Archives that were modified as part of the change. A change can be associated with a workspace. Each time a revision is checked out to the workspace it is added along with its archive to the change. In this way, VCS knows what Archives and what revisions from the Archive that make up a change."; see also Column 1: 43-47, "While a software developer is making a change to a source code file, a serious mistake is made, and the developer needs to recover the file to the point before the change was made. Without version control, there is no recovery mechanism."*)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Zeibell into the teaching of Parrish where an unshelving component that restores a private workspace to a state that was previously archived. The modification would be obvious because one of ordinary skills

in the art would be motivated provide a recovery mechanism or roll-back feature. (*See Ziebell, Column 1: 34-47*)

As per **Claim 8**, the rejection of **Claim 7** is incorporated, and Parris does not disclose:

- the unshelving component allows removing the state that is stored on a server or to preserve changes shelved on the server in order that the changes are available for unshelving by other users.

Zeibell discloses:

- the unshelving component allows removing the state that is stored on a server or to preserve changes shelved on the server in order that the changes are available for unshelving by other users. (*See Column 5: 58-62, "Each time a revision is checked out to the workspace it is added along with its archive to the change. In this way, VCS knows what Archives and what revisions from the Archive that make up a change."*)

As per **Claim 23**, the rejection of **Claim 21** is incorporated, and Parrish does not disclose:

- an unshelving command that restores selected files on the version control system to a previous state.

Zeibell discloses:

- an unshelving command that restores selected files on the version control system to a previous state. (*See Column 1: 43-47, "While a software developer*

is making a change to a source code file, a serious mistake is made, and the developer needs to recover the file to the point before the change was made. Without version control, there is no recovery mechanism.")

parris in view of

13. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Parrish** (**US 5,752,245**).

As per **Claim 20**, the rejection of **Claim 18** is incorporated; however Parrish does not disclose:

- the shelving and the unshelving command are associated with at least one security parameter.

Official Notice is taken that it is old and well known within the computing art that commands for a user interface can be associated with a security parameter to prevent unauthorized access. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the shelving and the unshelving command are associated with at least one security parameter. The modification would be obvious because one of ordinary skill in the art would be motivated to provide a secure environment for software development.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charu S. Kurani whose telephone number is (571) 270-1647.

The examiner can normally be reached on M-Th, 7:30 AM - 4:00 PM EST. The Examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

An inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WEI ZHEN
SUPERVISORY PATENT EXAMINER

C.K./
August 7, 2007